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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/649,431	08/25/2000	Vladimir Andreevich Bushuev	62935/PJP	6866

7590 11/29/2001  
Peter J Phillips  
Cooper & Dunham LLP  
1185 Avenue of the Americas  
New York, NY 10036

EXAMINER

VARCOE JR, FREDERICK T

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 11/29/2001

7

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/649,431

Applicant(s)

Bushuev

Examiner

Varcoe

Art Unit

1764



-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1) ☒ Responsive to communication(s) filed on Aug 23, 2001

2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

## Disposition of Claims

4) ☒ Claim(s) 1-5 is/are pending in the application

4a) Of the above, claim(s) 1, 2, and 5 is/are withdrawn from consideration

5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.

6) ☒ Claim(s) 3 and 4 is/are rejected.

7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.

8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirements

## Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.

12) ☒ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some\* c) ☒ None of:

1. ☒ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

19) ☐ Notice of Informal Patent Application (PTO-152)

17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 3

20) ☐ Other:

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## **DETAILED ACTION**

### ***Oath/Declaration***

The signed oath or declaration is missing. The Application also does not contain a copy of any priority documents.

### ***Election/Restriction***

1. Applicant's election of claims 3 and 4 with traverse filed August 23, 2001, in Paper No.6 is acknowledged. The traversal is on the ground(s) that Applicant disagrees with examiner's statement that the process of invention I can be practiced by another materially different apparatus from that of invention II, such as an FCC unit. Applicant argues that FCC units heat using heat exchange with granulated catalyst and not by means of rotor blades, and thus FCC units lack the capability of carrying out one of the steps of claim 1. This is not found persuasive because FCC units can have mixing capability whereby rotor blades can add to the heat supplied to the reaction.

In addition, examiner notes that this argument may be moot because in addition to the reasons for restriction previously given, the apparatus of invention II can be used simply as a mixer, thereby practicing another and materially different process.

The restriction is maintained. Claims 1, 2 and 5 are withdrawn from consideration as not drawn to an elected invention. Elected claims 3 and 4 will be examined.

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***Specification***

The title contains non-standard spellings for olefins and hydrocarbons.

***Claim Rejections - 35 USC § 112***

2. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim recites the casing covered on the inside by heat insulation. It is not clear what is that the insulation is inside. It is likely that the insulation is inside the skin and outside the casing, but the claim can be interpreted as saying the casing has insulation inside the casing or inside the skin. Correction is required.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 3 is rejected under 35 U.S.C. 102(b) as being anticipated by Dinulescu, U.S. patent 4,265,732.

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With regard to claim 3, Dinulescu discloses a reactor for producing low-molecular weight olefins (column 5 line 42) by pyrolysis of hydrocarbons, comprising a housing (Figure 2a (5)) with directing stationary blades (4), an inlet nipple (Figure 2a) for supplying feedstock, and outlet nipple (figure 2a) for carrying off cracked gas and a working wheel (1) provided with a blade crown (3), wherein the said housing has an annular cavity (Figure 2a) for circulation of hot pyrolyzed gas, said cavity containing the directing stationary blades and surrounding the blade crown of the working wheel along the periphery, and the said inlet nipple for supplying feedstock and outlet nipple for drawing off cracked gas communicating with the cavity (Figure 2a).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dinulescu, U.S. patent 4,265,732.

With regard to claim 4, Dinulescu discloses essentially the same apparatus as that of the present claim but fails expressly to disclose a heat-resistant skin and an insulating layer.

At the time of the invention it would have been obvious to one skilled in the art to add an insulating layer and a heat resistant skin to the apparatus of Dinulescu. Heat insulation and heat-resistant skins for chemical reactors are well-known in the art.

The motivation would have been to maintain the elevated temperature in the reactor while minimizing heat loss through the outer portion of the apparatus.

### *Conclusion*

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rick Varcoe, whose telephone number is (703) 306-5477. The examiner can normally be reached Monday through Friday from 9:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marian Knode, can be reached on (703) 308-4311.

The FAX telephone number for this Group Art Unit is (703) 305-3599 (for Official papers after Final), (703) 305-5408 (for other Official papers) and (703) 305-6357 (for Unofficial papers).

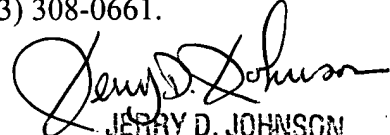
When filing a FAX in Group 1700, please indicate in the Header (upper right) "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communications with the PTO that are not for entry into the file of the application. This will expedite processing your papers.

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Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.

  
JERRY D. JOHNSON  
PRIMARY EXAMINER  
GROUP 1100

RV

November 17, 2001